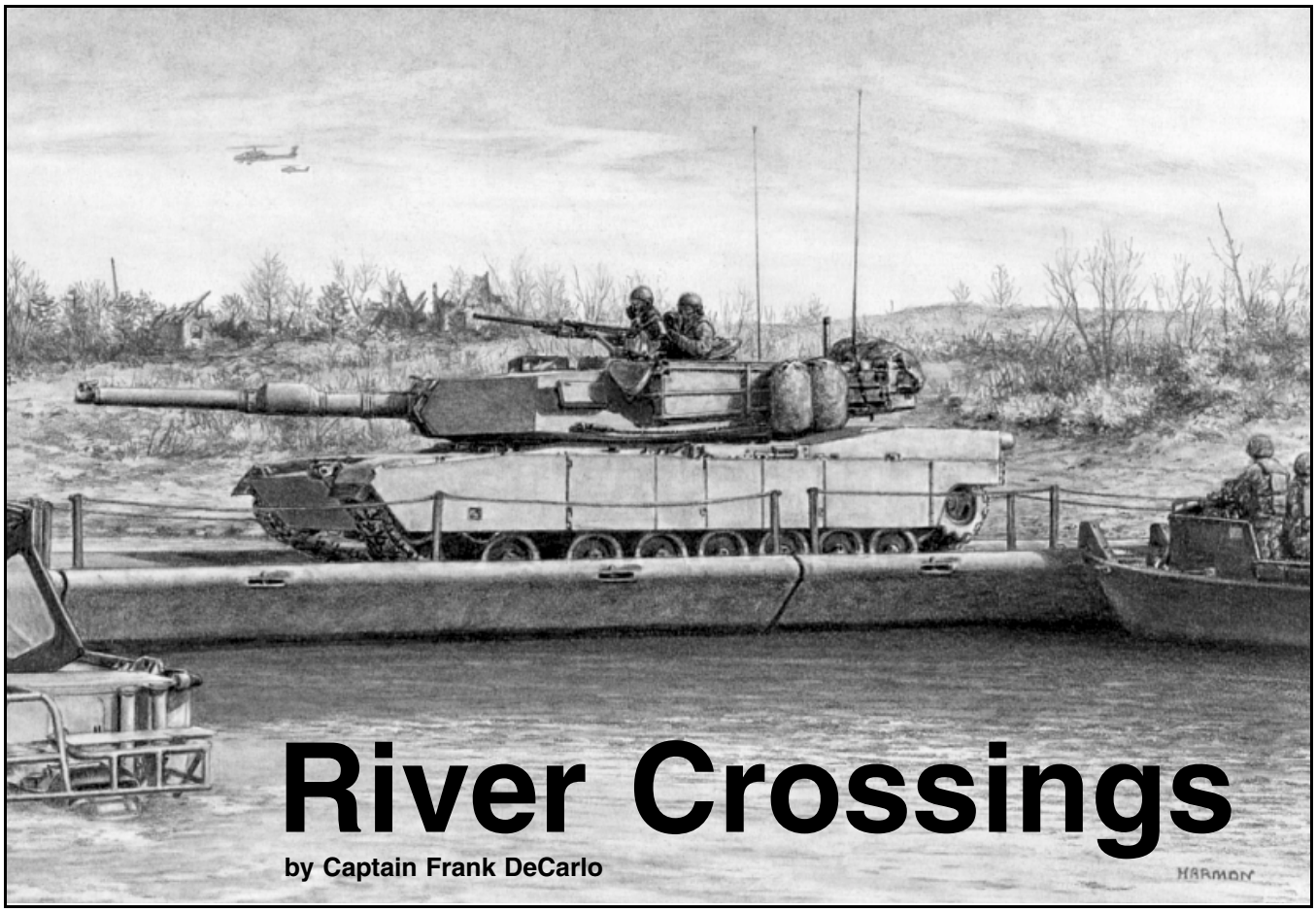


River Crossings

by Captain Frank DeCarlo

In October 1943, General Heinrich von Vietinghoff and his Tenth Army set up a heavy defense along the Volturno River line in southern Italy. The defense was set to slow the advance of the Allied movement north to allow time to prepare the main German defensive line south of Rome. Vietinghoff was under strict orders to hold the Volturno River line until 15 October. The American forces approaching from the south were from LTG Mark W. Clark's Fifth Army. Clark chose the VI Corps, commanded by MG John P. Lucas, to make the crossing. This set the stage for the first American attack of a defended river line in the war against Germany. For the Fifth Army, mass and

PHASES / CPS	ADVANCE TO THE RIVER	ASSAULT ACROSS THE RIVER	ADVANCE FROM THE EXIT BANK	SECURE THE BRIDGEHEAD LINE	CONTINUE THE ATTACK
DTAC (CROSSING FORCE HQ)	Coordinates lead brigade's seizing of near-shore objectives	Coordinates lead brigade's conducting dismounted assault of the river to seize far-shore lodgement	Coordinates lead brigade's seizure of exit-bank and intermediate objectives	Coordinates lead brigade's seizure and securing of bridgehead objectives and prepares to cross the reserve brigade (breakout forces)	Controls breakout force's attack out of the bridgehead and passes crossing force responsibilities to DREAR
DMAIN	Coordinates deep operations to isolate division advance to the river	Coordinates deep operations to isolate crossing area and far-shore lodgement	Coordinates deep operations to isolate exit-bank and intermediate objectives	Coordinates deep operations to isolate bridgehead	Coordinates deep operations to isolate enemy attack against corps objectives
DREAR	Sustain the fight	Sustain the fight	Sustain the fight	Sustain the fight	Assume crossing force HQ role
BRIGADE TAC CP	Coordinates lead task force's seizing and securing near-shore objectives	Coordinates the dismounted assault crossing of the river to secure far-shore lodgement	Coordinates TF's attack to seize and secure exit-bank and intermediate objectives	Coordinates TF's seizure and securing of bridgehead objectives	Prepares to reorganize and follow the breakout force attack out of the bridgehead toward division deep objectives
BRIGADE MAIN CP (CROSSING AREA HQ)	Moves and prepares crossing area to provide traffic control, crossing means, and obscuration	Coordinates assault crossing means for TF dismounts and controls obscuration of crossing sites	Controls follow-on TF's pass-through crossing area into attack positions within far-shore lodgement	Controls passage of brigade units through crossing and prepares to cross breakout force	Brigade CPs pass crossing area control to supporting corps engineer battalion

Figure 1. CP Tasks

speed were essential in order to deny the Germans time to build up their defenses south of Rome. On 9 October, Clark ordered Lucas to conduct an attack across the Volturno. However, due to the severity of the fall rains, excellent German tactics, and poor planning and organization, Lucas was not able to have his two divisions on line and ready to attack until 12 October. The initial assault started at midnight on 12 October, but because of poor choices in crossing sights and inadequate planning and resourcing, the assault failed. The Germans still owned the river at the end of 13 October. The next attempt on the 14th was plagued with problems of poor coordination between the various elements of the force (infantry, armor, and engineers). These problems led to improper resourcing and poor synchronization. It was only individual ingenuity and excellent small unit leadership that allowed construction of a corps bridge on the 14th. This bridge allowed armor support to the far side. On 15 October, the two American divisions broke out of their bridgehead and began pursuing the Germans north, five days later than Clark expected. Due to the weather and poor American planning, coordination, and resourcing, General Vietinghoff successfully delayed until the 15th of October, as ordered. His successful delay allowed him to withdraw north to a prepared defensive line south of Rome.

This historical example shows the terrible degradation of a force's mobility that a river obstacle can cause without the proper planning, coordination, and resourcing of a well-understood crossing operation. The Army of 1943 learned at Volturno the importance of proper river crossing operations for maintaining the armored force's mass and speed. The question I propose today is, has the Army of 1994 forgotten that lesson?

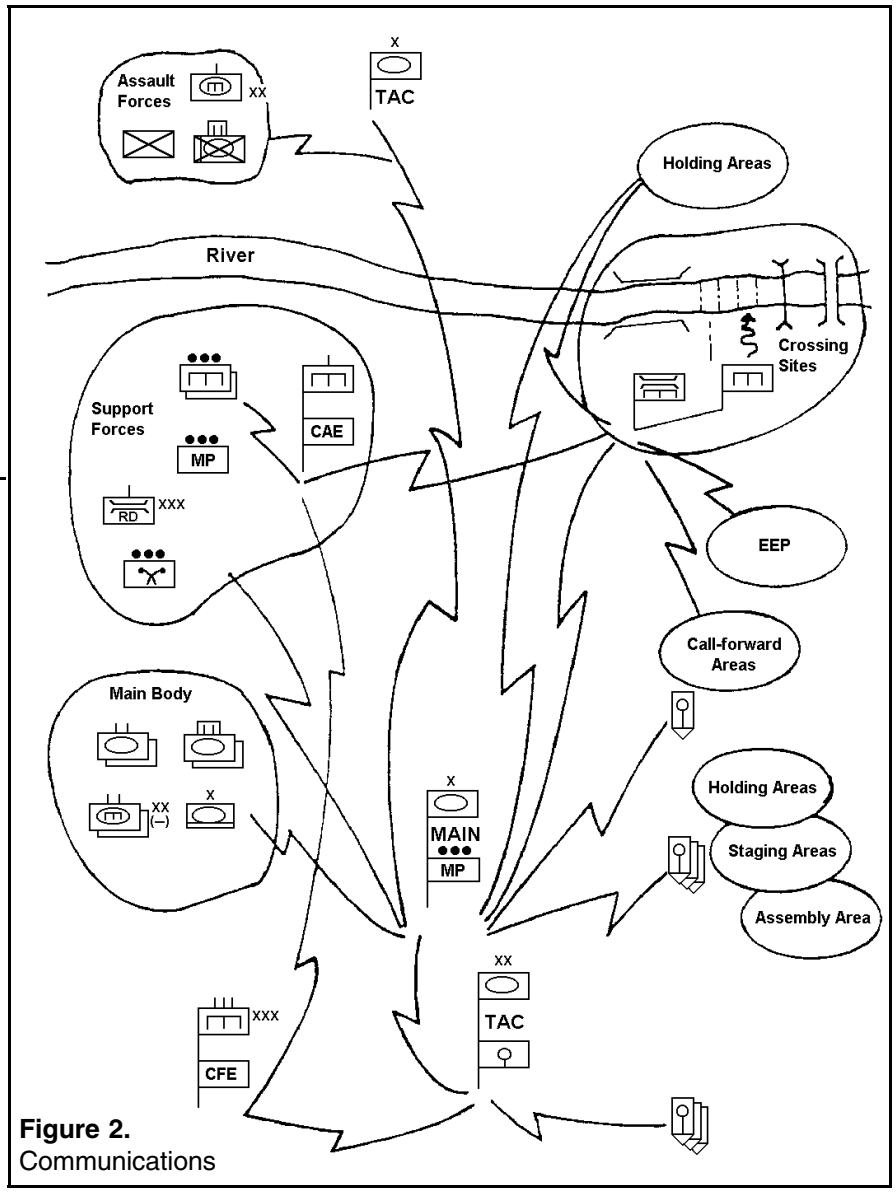


Figure 2.
Communications

Being an Engineer in the only full bridging battalion in the Army, I became well aware of the lack of combined arms training opportunities an Armor unit has in this complex operation. While attending the Armor Officer Advance Course, whose mission is to prepare the armor community's future company commanders and brigade and battalion staff officers, I saw the lack of attention given to such a complex operation. Finally with the loss of the bridging company in the divisional engineer battalion, due to the Engineer Restructure Initiative (ERI), you not only have a loss of training opportunities, but also the loss of familiarization with a bridge company's equipment and capabilities. Therefore, with the lack of training in our schools, the lack of training opportunities in the field, and the overall lack of familiarization with bridging capabilities, the question to ask is, are today's officers ready for the challenge of such a complex operation? With this in mind, this article will try to make the reader aware of river crossing doctrine, its complexity, and the need for training in this operation.

FM 9-13 describes a deliberate river crossing in this manner:

"It is an audacious attack that is planned and meticulously coordinated with all concerned elements. The deliberate river crossing requires thorough reconnaissance and extensive evaluation of all intelligence. It requires detailed planning and preparation, centralized control, and extensive rehearsals. A deliberate river crossing is costly in terms of manpower, equipment, and time... This type of river crossing requires the sudden, violent concentra-

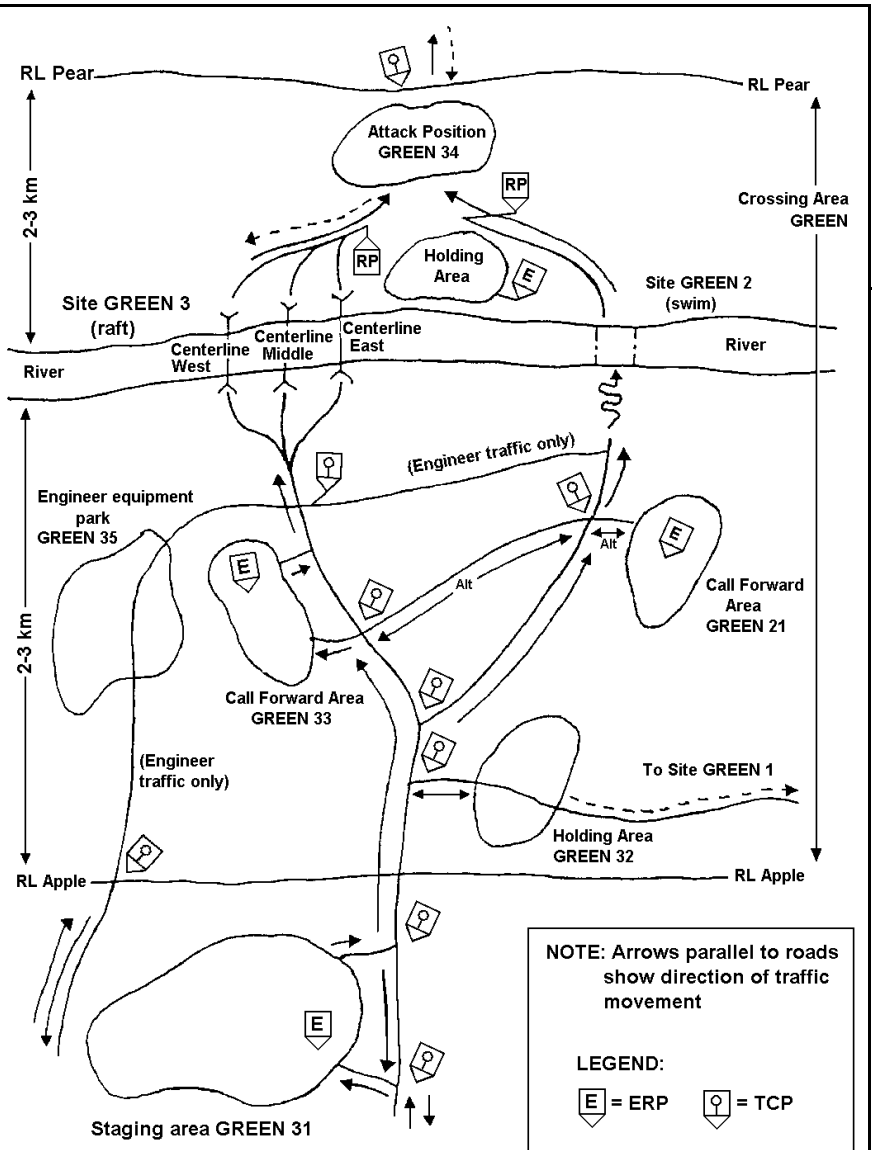


Figure 3. Control Measures

tion of combat power on a narrow front capitalizing on the element of surprise."

Such an operation requires specific planning and command and control measures which we will discuss briefly.

A crossing operation is broken down into four planning phases. Phase 1 is the advance to the river. This is a deliberate attack to seize the near shore of the water obstacle. Phase 2 is the assault across the river. This is the assault to secure the far shore and eliminate direct fire on the crossing site. Phase 3 is the advance from the exit bank. In this phase you seize the far bank and intermediate objectives and eliminate indirect fire on the crossing site. Phase 4 is securing the bridgehead line. This final phase involves the protection of the bridgehead against counterattack and the buildup of forces for the attack out of the bridgehead.

A division is the smallest unit to conduct a deliberate river crossing. There are five major command and control points which run the operation. They are the division TAC, Main, and Rear, and the Brigade TAC and Main. However, there are various other command and control points at lower levels which are also important to the success of the operation. It is critical that the personnel manning these points thoroughly understand river crossing operations as written in FM 90-13. Figure 1 is a matrix of each CP's task by phase.

There are unique terms used for the command and control of river crossing operations. Crossing Force HQ is the DIV TAC and the Crossing Area HQ is the Brigade Main CP. The crossing force commander (CFC) is usually an assistant division commander in charge of controlling the crossing. The crossing force engineer (CFE) is normally the corps engineer brigade commander or a group commander from the corps engineer brigade. He provides or coordinates engineer support from corps to division and assists in the overall planning. The crossing area commander (CAC) is normally the maneuver brigade XO. He controls all movement and positioning of all elements located in the crossing area (area between release lines). Crossing area engineer (CAE) is the corps engineer battalion commander who commands those engineers tasked to move the force across the river obstacle. He is also responsible for all the crossing sites in that forward brigade's AO. He informs the CAC of any changes in the crossing sites or the crossing means that may affect the mission. The crossing site commander (CSC) is the engineer company commander or platoon leader of the bridging unit operating the site. He is responsible for that site, its engineer regulation point (ERP), and the call-forward areas for that site. He works closely with the MP platoon leader controlling the traffic to that site. The unit movement control officer is a designated officer from each crossing unit who coordinates the unit's movement according to the unit's control plan. Figure 2 shows the complex communication network needed to control a river crossing operation.

There are specific control measures for crossing operations. Release lines are used to delineate crossing areas. They are normally located within 3 to 4 kilometers of the river and are easily identifiable terrain features. Call-forward areas are company-size waiting areas used to organize units into raft loads. The CAC controls movement from the staging area to the call-forward area. The CSC directs movement from the call-forward area to the crossing site to the far shore attack position. Engineer regulating points (ERPs) are technical checkpoints which form loads

and ensure they do not exceed the capacity of the crossing means. Each crossing site requires a minimum of one ERP located in its own call-forward area. Engineer equipment points (EEPs) are concealed sites used for the assembly, preparation, and storage of bridge equipment and material. EEPs require good routes to and from the crossing site. Figure 3 is an example of the control measures used for a crossing operation.

All these measures must be considered at brigade when preparing a crossing plan. There is one major difference when planning a river crossing operation versus other tactical operations. This difference is the added dimension of time when considering combat power allocation against threat units. Allocation of friendly forces to the battlefield is totally dependent on the rate at which they can be brought across the river. That rate is variable throughout the operation. The river crossing operation plan must include several tools by which to control that variable. These include: a crossing overlay, synchronization matrix, movement plan, and traffic circulation overlay. The officers and NCOs preparing such a plan must be well versed in FM 90-13 to ensure proper synchronization.

Bibliography

Works and Sources Cited

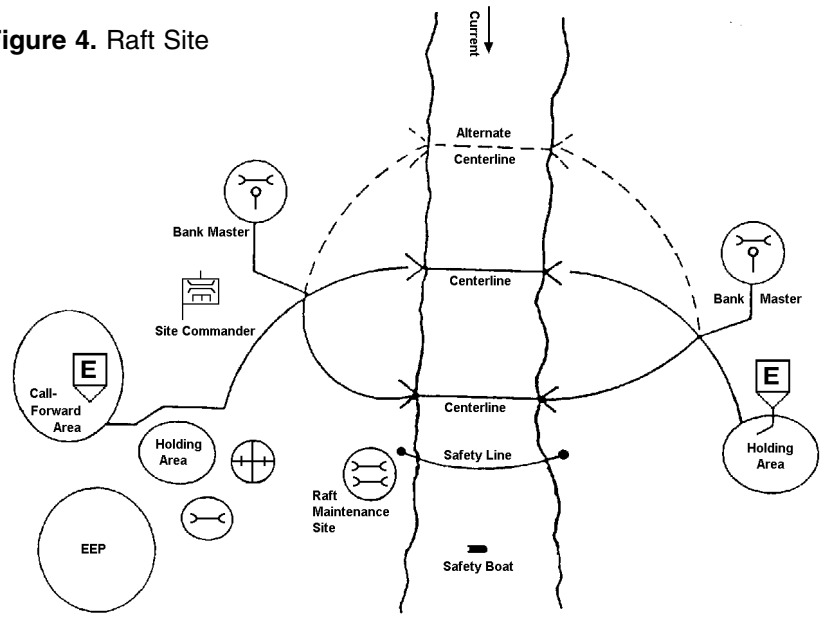
Department of the Army, *River Crossing Operations,* Field Manual 90-13. Washington, D.C.: U.S. Government Printing Office, 1992.

Works and Sources Consulted

Dunn, James W., "The Volturno River Crossing." In *Builders and Fighters.* Ed. Barry W. Fowle. Office of History, U.S. Army Corps of Engineers, Ft. Belvoir, Va., 1992.

U.S. War Department. *Volturno River Campaign 1943,* Government Printing Office, Washington, D.C. 1944.

Figure 4. Raft Site



Examining a deliberate river crossing operation at a company/team level, one will see the following sequence of events. There will be initial movement along a designated route to a battalion-size, concealed staging area. In the staging area, the unit will receive a briefing on vehicle speed and spacing within the area, and it will have time to execute its own crossing preparations. On the call from the CAC, the company will move to a call-forward area with the assistance of MPs along traffic control points. There the unit will go through the ERP and the engineers will break the unit down into raft loads (during rafting operations). The CSC will then call raft loads to the crossing site. Each load will be met at the crossing site by the Bank Master and directed to a particular centerline. At the centerline the load will be guided onto a raft and transported to the far shore. The centerline guide then directs the raft load to the far shore attack position, where the unit reforms. After a sufficient amount of combat power is rafted across to allow for safe bridging operations, the engineers will convert the rafts to floating bridges for follow-on units. The follow-on units will conduct the same type of operation, except they will be called to the bridge site directly from the staging areas. Figure 4 shows the typical layout of a raft site.

As one can easily see, a river crossing is a very complex operation. It requires detailed planning, meticulous coordination, and extensive rehearsals from all personnel involved. In conclusion, with the Army of 1994 having possible areas of operation which include such obstacles as the Danube, Euphrates, Naktong, and Yalu Rivers, it would be wise to reexamine the lessons learned on the Volturno in 1943. We should take those lessons about the complexities of river crossing operations and teach them in our schools and practice them in training so we can project that mass and speed over any obstacle whenever needed.

Captain Frank J. DeCarlo is a 1990 graduate of the U.S. Military Academy. He graduated from Engineer Officer Basic Course, Scout Platoon Leaders Course, and the Armor Officer Advance Course. He is Airborne and Air Assault qualified. His previous assignments include: combat engineer platoon leader in 237th Engineer Battalion, float bridge platoon leader in the 93d Engineer Company, support platoon leader in the 517th Medium Girder Bridge Company, battalion adjutant in the 565th Engineer Battalion (Bridge), and project manager for the Armor Center Breach Laboratory. He is currently the Assistant S3 for the 588th Engineer Battalion, 2d Armored Division.